TS Bulletin

News Supplement
#2-1990

A Hobby Publication
of:

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The Indiana TSU reports that a new version of the program by Stan Lemke, Pixel Print Plus (ver.4) has been released.It was almost finished when Lemke Software Dev. got out of TS2068 market and Steven Spalding of Sting Graphics has completed it. It no longer supports the TS2040 printer but has substitute a Greeting Card design facility in the space saved.The Indiana n/l is planning a review of desktop pub.progs. starting with their next issue.The writer recently talked to Larry Kenny of Larken, who is currently working on a TS2068 dest.top publ. program with spell-checker,etc. This useful area of use for Sinclair computers happily continues to grow in support. ....The Indiana n/l also has a 2 p. advert. for the Oliger,TS2068 disk system specifying 395K disks,5¼ inch and they are also selling their system in bare pcb form (no chips,two boards needed) for the hardware hacker to assemble.This system has had a long evolutionary course of upgrades and improvements.It is double-density, uses the WD1770PH-00 f.disk controller chip and is Spectrum ROM &OS64 compatible.John Oliger Co.,11601 Whidbey Dr.,Cumberland,IN,USA 46229....Larken El.,RR#2,Navan,Ont.,Can.K4B1H9 and Aerco, Texas, sell TS2068 disksys. too....Sincus,1229 Rhodes Rd.,Johnson City,NY, USA13790 is working to mate the Linger Board(RS232 terminal bd)to TS2068.This makes use of TTL mon. &IBM keybd. possible with TS2068. 80col.TS2068 BASIC ROM mod.coming.

→**MagazineNews**:SyncWare News/Quantuum Levels is selling back issues for US$3 until exhausted (@602 S.Mill St.,Louisville,OH,USA 44641)-losses of about $5000 put them out of circulation a year ago....Vol5No2 of Time Designs is out,29722 Hult Rd., Colton,OR,USA 97017(BBS-503-824-2658,8/1/n)....Update the disk **system magazine** is US$18/yr,1317 Startford Ave.,Panama City,FL,USA32404(904-871-3556).**It has 2068**, QL & Z-88 material.(4xper yr)...Byte Power,TS2068 mag-on-a-cassette, demo US$3,1 issue $6, 6 issues$32-also TS1000 progs.$10;fast load for TS2068-$20;LKDOS util.v.2.0-$30,'DUS' ================== @1748 Meadowview Ave. Pickering,Ont.,Canada L1V 3G8============

→**Mailing List Changes**: add to your list the following contacts **for** Sinc SIG's ----- G. Granger, 812 Hedwick St.,New Carlisle, Ohio,USA 45344; Another Sinclair SIG is in Pittsburgh Area Computer Club, Sinclair SIG, R. Vasko, One Virginia Dr., Donora, PA,USA 15033 -Note both of these addresses are contacts reported by SLIX and are not necessarily the contact persosn that are officially representing the Sinclair SIG's in these groups, but they are probably leads worth following up....As yet no address here for Boston TSUG, said to have separated from Boston Comp. Soc.(as SIG)

→**Supplier File**: TK Computerware (QL Software),Stone St.,North Stanord, Ashford,Kent, England CT25 6DF;---Lloyd Dreger, P.O. Box 101, Butler, WI,USA 53007 (3 books on using machine code with the TS2068);---Pyramid Electronics, 2174 Gulf Gate Dr., Sarasota, FL,USA 34231 (813-922-9574)(TS1000 & TS2068 software);---Bottle Cap Software, 1284 Brushwood Ave.,Cincinnati,OH,USA 45224 (OS-64 software, TS1000, TS2068, including Checkbook Balancer, Credit Card Payer,Index Card Printer for Cassette Boxes are three examples of their OS-64 programs for US$6 each);--- TS(1000?) progs. available, 10 for $15, $3 each, 36 titles to choose from, $25 min, order from, AT Software Liquidators, 2640 S. Harbor Blvd.,Santa Ana,CA,USA 92704(714-751-2667) ....Wm.McKelvey,744 Wall Rd.,Spring Lake Heights,NJ,USA 07762 is making heavy duty power supplies for the TS2068....

→**Bugs,Fixes & What You Can And Can't Do,(Maybe*)**: Can you interface a Commodore 64 disk drive to a TS2068? Maybe, SLIX reports that a group out of Ohio once worked on a project to do this....Can you use CASE with LONGINT in TurboPascal ver.4.0to 5.5 ? Probably not due to a bug in the compiler, the fix is to use IF..THEN...ELSE instead....Can you use MS DOS version 3.0,3.1, 3.2 happily with all compiled programs (as with the QL The Solution emulator?), maybe the odd bug will appear, since MS DOS only fixed a particular bug in its versions 3.3 and later....Is there a simple program, available preferably in source code, to read CP/M disks with an MS DOS computer?-if there is anything out there in the public domain the publisher of this newsletter would like to know....Can you read MS DOS disks on a Radio Shack CoCo with OS-9 Level I? If so, Michael Furman, of Calif. GUTS group would like to know and wants to try to write a program to do so. Contact SLIX if you know anything.... Are BASIC programs,written in the dialect of your interpreter, convertible to a compiled program? As often as not no. Most compilers will load in interpreter created programs but only a few will compile them without editing/changes.......

→*MAN WHO SAY IT CAN'T BE DONE SHOULD NOT GET IN WAY OF MAN WHO IS DOING IT! - Old Proverb ←

AMATEUR PROGRAMMERS' LINE: A Column by Bill Harmer

BASIC is still being used in the real world out there (MS DOS, Atari ST, Apple Mac), by amateur programmers, but not as much as the newer, more in-fashion languages like C language or even the newest entry, Modula-2, by the inventor of Pascal. Probably more amateur programmers have moved up to Pascal than any other language, when casting around for substitutes for BASIC. In the Sinclair world, that usually means HiSoft Pascal on the Spectrum-Rom-equipped TS2068, although the QL has a version of Pascal (or more than one) and even the lowly TS1000/ZX-81 had a version (of partially integer Pascal) called Partial Pascal, on cassette. For the IBM(&CP/M)crowd, Turbo Pascal by Borland still is the standard although some public domain/shareware versions of Pascal do exist, like Mystic Pascal. Trouble with most compiled languages is that you have to go through a tedious set of steps to get your source code program compiled so you can test it to see if it will work. The alternative, not testing until you have added a lot of lines of code, may mean that when the routine bombs, you have a lot of possibilities to look into, as to the bug's cause.

The writer once, rather grandly thought of establishing a BASIC codeworks operation to revive the dying art of distributing the source code for BASIC programs, since once the programs are compiled, you lose the source code and then the user loses the educational value (if any) of tracing how you did this or that function. I still say, that reading others' source code is the only way to improve your own programming quickly, and with compiled programs, that is hardly possible, since they tend to get disseminated, without their otherwise, accompanying source code files (if for no other reason than to save modem time and disk space). A few programs were added to the file of such BASIC source code, but it is amazing how much work there is to writing even a simple program, and getting it running. Time perhaps better spent, on learning another language, or something, was sort of begrudged to the BASIC code writing project. Of course, another source of BASIC code remains, that of Sinclair programs converted over to MS DOS, but then that is another story. Simpler programs for the simpler computers like the Sinclair orphans, do however tend to look a little sick and their graphics rather pale, when uploaded to MS DOS or even uploading TS1000 programs to the capitals and lower case, milieu of the TS2068 and QL. Anyway, treat your store of original BASIC programs as a treasure trove, since there is no way of knowing if you or another might be able to gain by converting them to another computer's format. The best way to do it would be probably to have a building block program in the new computer's BASIC, which provides the sort of essential title page display, menu display, 'Press enter to turn a page' sort of routines already tricked out, in form and elaborateness suitable to the new computer and then upload the old BASIC program (or key it in) to that block, and with a bit of splicing and editing, most of what works in say, ZX-81/TS1000 BASIC, will also work in the more fully-featured BASICs of the bigger computers around. Maybe, the newer computers require you to put variables in brackets (for SQR X use SQR(X), square root, for example). Some BASIC's use LOCATE or PRINT @ instead of PRINT AT, and often the easiest way to solve the problem is, instead of using PRINT AT 9,14;"MENU" to centre the word, just a bunch of PRINT statements to get to the middle of the screen, and then PRINT"   MENU", with as many spaces in the quotations ahead of the word, 'MENU' as are needed to centre it. Most computers have fancier ways of doing that, but the simpler method will solve the problem until you get into the fancier ways (perhaps, as is often as not, never even mentioned in the users' manual for the new computer) can be discovered.

Theoretically, the amateur can stick with BASIC for ever, as all computers sooner or later have a BASIC made for them. (The exception, IBM AT clones running Windows by Microsoft, offers a chance for the ambitious amateur programming language designer). I would think that anything worth doing on a computer can be done with BASIC programs, perhaps running a little machine language in sub-routines from within the BASIC programs. The BASIC compilers around also offer the choice of going that more sophisticated route without learning a totally different language anyway. The TS2068 has the Timemachine BASIC compiler and even the ZX-81 had at one time MCODER (an integer BASIC). Of course for those running CP/M on the Sinclair computers, the regular CP/M BASIC compilers are perhaps another option.

There are just too many BASIC programmers and BASIC programs for BASIC to die as a language, at least not in the next ten years, for sure.

Two For The (Mailing) Cost of One

One of the ways that user groups communicate to each other and their out-of-town members, is by mailing a diskette of software or text (such as newsletter items). As more and more people have access to IBM-compatible computers and some orphan computers have disks either of limited capacity or conflicting aftermarket supplier-set formats, perhaps this is an idea to consider. Why not use a double-sided disk, with one side formatted in a good format for text files, like MS DOS and the other formatted for the single-sided format of the user group's orphan?

Some of the older, MS DOS format programs have the option of FORMAT/1 for a 160K single-sided disk. Then files can be transferred to this side of the disk with any IBM-compatible computer and likewise read by them. The other side could be used to carry programs and other files unique to the user group's orphanned computer. ZIP-compressed text files, can, even in 160K on the MS DOS side, be equivalent in size to nearly 800K of ordinary ASCII text and documentation files. It makes sense to put articles and other material in this form in MS DOS format, compressed if necessary, so they can be transferred to regular IBM-compatible diskettes of the same 5¼" size, expanded and printed out into hardcopy form.

LKDOS for the TS2068 by Timex-Sinclair, as well as Oliger and Aerco offered single-sided formatting, and the Apple II and Commodore 64 use single-sided format as their standard method of formatting a disk. Such a disk should not be used too much though as in one direction it is running backwards, spitting out any dust the lining may have caught. But adding an extra notch to the other side of the disk to make it a double-single-sided disk, is easy and only requires a couple of punches with a hand-paper-punch for making binder holes in paper.

The Squeeze Is On!

It has come to our attention that there is a crying need for as full a complement as possible of file compression programs (especially text file compression) for the orphan computers such as the Sinclair line. The problem for a unique system, is that it would only compress and uncompress files done on that specific make and model of computer, with that specific compression/expansion utility.

If instead you go for one of the major utilities, program sizes of up beyond 40K (for the compression programs, more than 20K for the uncompression programs), make that a little cumbersome for the small memory computers like Timex TS2068/Spectrum, Commodore 64 and even more the Sinclair ZX-81 size of computer. Efficient use of these programs also requires a disk drive system with a fairly sophisticated operating system. Those who have CP/M can use the readymade SQ facility, available as a CP/M program in the public domain (and UNSQ; and TYPESQ for reading SQueezed files without expanding them onto the disk).

Once as a curiosity, the writer made a compression/uncompression program in BASIC for the little 16K, ZX-81 although it was rather slow to compress or expand a single line of text. But each program had only about a 2K size (overhead). The principle used was simple: to encode in compact form the 26 (capital) letters of the alphabet plus space plus some punctuation, one need only use 5 bits, for the 32 possibilities. If you waste one to make sure that this data, held in ZX-81 BASIC strings, never contains a string terminator character, etc., that means that 4 characters of 8 bits (Sinclair code) can be reduced to, characters in 6-bit code that take up only 3 bytes. This makes for a maximum compression of the original text into 75% of its space in memory (RAM, tape or disk). Disadvantages included having to spell out numbers like 100 into 'two hundred', putting down the compression factor quite severely. Also, the program was very, very slow.

Much source code for the conventional utilities is floating around and might be adapted to run on say a Spectrum ROM equipped TS2068, the Sinclair computer thus equipped being accessible to Pascal and C language programmers via HiSoft's compilers for both these languages. The writer has seen the source code for UNSQ in Pascal (but not SQ, or TYPESQ). The source code for all three is said to be freely available in C language (Lattice C, it is thought). All that is food for thought for the amateur programmer!

Newsletter Scene, Books & Magazines

The first issue of SNUG Round-Up, the newsletter of the Sinclair North America User Group is out and in looking through it one can find much good reading. An article by J.F. Brezina on PRINT# and LPRINT in the TS2068 illustrates the finer points of using PRINT #, in that computer's BASIC. A summary of software and hardware developments for the Sinclair computers also covers a lot of ground, as does an article on text-processing and formats desirable for submitting material to the newsletter. By the way, any submissions (and they are requested) should be sent to the interim editor,(SNUG, c/o Paul Holmgren,5231 Wilton Wood Ct.,Indianapolis, IN,USA 46254). Talk of plans for a 1990 Sinclair FEST organized by the Milwaulkee group is also covered. All in all a strong first issue with articles of a good, solid length.

As has been said elsewhere, Computer Shopper, under new management, has dropped its classic computer coverage including Timex-Sinclair. Dropping Sinclair is annoying to us, but dropping Commodore 64 coverage in favour of the little known Commodore Amiga makes even less sense (with the Commodore 64 just about the most numerous computer ever made). It looks like a case of another magazine taken over by the grey-suited business types rather than true affectionados of the field. Hope they don't drop or cut down the User Group listings, for these are possibly the only reason for many of us to still want to watch this magazine.

The news in books with the writer of this column is used books, and some previously quite expensive ones have turned up on the used book market (and bought by yours truly) recently. Books on CP/M, orphan computers of many kinds and languages like LOGO and Tiny C, are also turning up as well as college texts on a variety of topics that still remain zones of unknowing to many hobbyists, like the theory of computer languages and operating systems. A brand new book recently purchased, though not the promised revised edition, Comer's, Operating System Design (XINU) turned out surprisingly to have a treasure trove of DEC PDP-11 info as well as the theory of multi-tasking operating systems like UNIX being covered in a very concrete, hands-on sort of design manner (the design of a UNIX-like demo called XINU). The book is not available paperback and it is not cheap, but it is one of those rare things, a readable technical book on a deep subject. Speaking of multi-tasking and micro-computers, OS-9, the multi-user system best known by its sale for the Radio Shack Color Computer disk system, is now available for IBM-compatible computers. Only trouble is you have to buy an accessory, 68000 board from its developers for over $1000. Well, it was a nice thought. (PCM magazine, Jan.,1990, covers this accessory). Of course, the QL, tops so many systems with its multi-tasking, networking operating system, built-in!

Computing Now!, a Canadian computer magazine is debating with a reader on the inevitablility of OS/2, IBM's new multi-tasking operating system, and the mudslinging has degenerated into name calling (the name, 'technoweenie', is no doubt newly coined for such debates). It looks like a case of the industry enthusiasts arguing yet again that the consumer needs to spend more money on newer hardware ever quicker, and the reader pointing out that the average user has not digested or maximized the use of the present generation of hardware and the use of its software. But, the magazine does again make a case for the multi-tasking, multi-user systems being the wave of the future. Some years earlier, when Computing Now! was more interested in what are now called orphans, some interesting reviews of Commodore and Sinclair computers and products graced its pages as well as CP/M articles. Some of them are still worth reading if you are looking at back issues of the magazine in used book stores or the library. The magazine features concise and well written articles as its modus operandi.

Speaking of old magazines, what a treasure house of MS DOS and just general computing information there is in old Byte magazine issues. Basic theory like that of file compression (such as the Huffman, SQueeze system), inside looks at the features of CP/M, MS DOS, C Langauage, Pascal and other software, and reviews of computers that now, years later sometimes turn up unexpectedly in the used/orphan computer resale market, all make handy reading reference. If you have a question about personal computers, chances are someone has answered it in Byte, if you are able to look through the back issues at a library.

Well that wraps up our look at magazines and books for the budget conscious computer enthusiast. A picture may be worth a thousand words and a demo a hundred pictures, but a magazine or book often offers both to the computer user (& the words)

Notes of Personal Developments

The first SNUG newsletter includes a wish list of software and hardware items addressed to potential developers, that is you and me. At top of the list of programs is a bunch of utilities to read disks from other computers and/or disk systems. Some for the QL are available from Britain for at least MS DOS or CP/M but this source is short on readers/convertors for the aftermarket TS2068 disks not to mention ZX-81, formats. Some work has been done, mainly by Harvey Taylor of the San Francisco group to convert or at least read, in a sort of manual way, disks from TS2068 LKDOS, Oliger and even Aerco formats. ZX-81 disks are not mentioned. A second software wish is for archiving utilities to convert text files generated by Sinclair computer based word-processors to the SQ, ARC, ZIP and ZOO compressed formats. Apparently much of the work has been done to get utilities that will uncompress (extract) files from these compressed format files, but less to get the utilities (often a bit more complex) to turn ordinary text to compressed format text. The writer has been searching for source code files to do either but has only found a Pascal source code program to UNSQueeze the SQ format files. (Anyone who wants a copy, paper or MS DOS, 360K disk, let me know, along with a couple of bucks to defray costs. What dialect of Pascal, is not clearly indicated but perhaps it is early Turbo Pascal.) The writer hopes to get C language source code for SQ, UNSQ, etc. soon though (most of these programs are written in either C language or machine code originally - HiSoft C for the Spectrum ROM equipped TS2068 should be able with some editing to handle such C language source code). A Pascal version of an ARC utility exists but the writer has not been able to track down a copy (it came with Turbo Pascal version 3 or so, it is believed). More research on this is called for clearly, and it is more delving through magazines, advertisements and articles and developers' literature etc. Anyone with any ideas might contact me and/or the San Francisco group (SLIX), and SLIX is addressed, c/o Bill Miller, 6675 Clifford Dr., Cupertino, Calif, USA 95014-4530. (My address is B.Harmer, 97 Ruskin St., Ottawa, Ont., Canada K1Y 4B3).

Those whose computers run CP/M or run CP/M via an emulator have MS DOS disk reading/text editing facilities available in the form of public domain programs, SQ, as well as ARC utilities, so that is another way to get at it. If you have a QL, the CP/M emulator could possibly help you start running such CP/M utilities.

Another item on the wish list was an editor, one for each computer, to edit programs. And, from here one to include a ZX-81 style syntax checker for each language would be a real dream come true! The writer has played around with text editors at least and has made a simple one as part of a ZX-Desktop program, never distributed (in part due to lack of interest). The program also includes memo-pad/tel. number database, adding machine facility (to work with the ZX-Printer to make a tape) and screen calculator, as well as a very simple spreadsheet (actually one column or two-column columnar pad). Editors have fascinated yours truly and the attempt to write one for the ZX-81, later MS DOS (in both GW BASIC and MS BASIC) and MS DOS Pascal continues intermittently here. However, there is willingness to share the source code with those who would also like to give it a try, and perhaps get better results.

Documentation is another thing. The writer is working on several books/booklets at the moment. LDOS, ZX-81 Larken Disk Manual is the biggest project, which in the extended edition format, now nearing early edition release, is over 100 pages. A booklet of Assembly Language Programming for the ZX-81 and one of Tips, Tricks and Techniques Of The User Group Masters* is also in the rewrite (and expansion) phase. A general orphan computer user manual and general disk system info books are on the back burner too. Since the winter, chief time of indoor work productivity, is starting to wane, it is time to get more effort into these books so that something productive appears before the spring/summer weather change. At the moment, looking out the window brings only aquamarine skies over snow covered ground and the snow on the garage roofs in several backyards, to view and with the temperatures so cold, there is little incentive to go outside just for the purpose of being there. However, winters also pass and along with them the resolutions to write one more book chapter, and learn one more language (Pascal at the moment).

* For the ZX-81/TS1000 only.

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